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September 18, 1998

EX PARTE

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, NW, Room 222
Washington, D.C. 20554

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SEP 18 1998
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: CC Docket No. 98-121 and CC Docket No. 98-56/

Dear Ms. Salas:


This is to inform you that William Stacy, Ray Lee, Craig Duncan, Jerry Moore, Robert Blau, and the undersigned, all of BellSouth Corporation, participated in a videoconference with Commission staff on September 18, 1998. Also participating in the conference were Dr. Fritz Scheuren, Dr. Susan Hinkins and Scott Abbott of Ernst & Young. The following Common Carrier Bureau staff members attended some or all of this conference: Neil Fried; Jake Jennings; Andrea Kearney; David Kirschner, Florence Setzer, and Daniel Shiman.

During the videoconference we discussed BellSouth's Service Quality Measurements (SQM), the measurements that BellSouth has submitted to demonstrate that it is providing competitive local exchange carriers (CLECs) nondiscriminatory access to unbundled network elements, and in particular, to operation support systems (OSS). We discussed the magnitude of the data sets underlying the measurement calculations. We also discussed the definitions of the components of the formulas used to calculate the SQM.

We also discussed BellSouth's efforts to comply with the recent order of the Louisiana Public Service Commission in its Docket U-22252 (Subdocket-C). BellSouth presented a methodology that it proposed for performing the pooled variance test discussed in the CC Docket No. 98-56 and required by the LPSC. The attached documents formed the basis for that discussion.

As required by Section 1.1206(a)(2) of the Commission's rules, we are filing two copies of this notice and ask that you associate this notification with the proceeding identified above.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kathleen B. Levitz".

Kathleen B. Levitz
Vice President-Federal Regulatory

Attachment

cc:	Neil Fried	Jake Jennings	Andrea Kearney
	David Kirschner	Florence Setzer	Daniel Shiman

FCC Pooled Variance Statistic

Assumptions

Observations are independent, within samples and between samples
Observations are identically distributed

Test Statistic

The two sample comparison uses the statistic

$$\frac{\overline{x}_C - \overline{x}_I}{s_p / \sqrt{n_C + n_I}}$$

where there are n_I ILEC transactions, and the sample mean for the ILEC observations is \overline{x}_I ; the summation is over all individual observations for the ILEC's. Similarly n_C is the total sample size for the CLEC's, etc. A pooled estimate of variance is used,

Tests

If the sample is sufficiently large, the test statistic then has (approximately) a normal distribution.

9/18/98

Calculation Issues for FCC Performance Measures

Goal: Need a method that works all the time, every time.

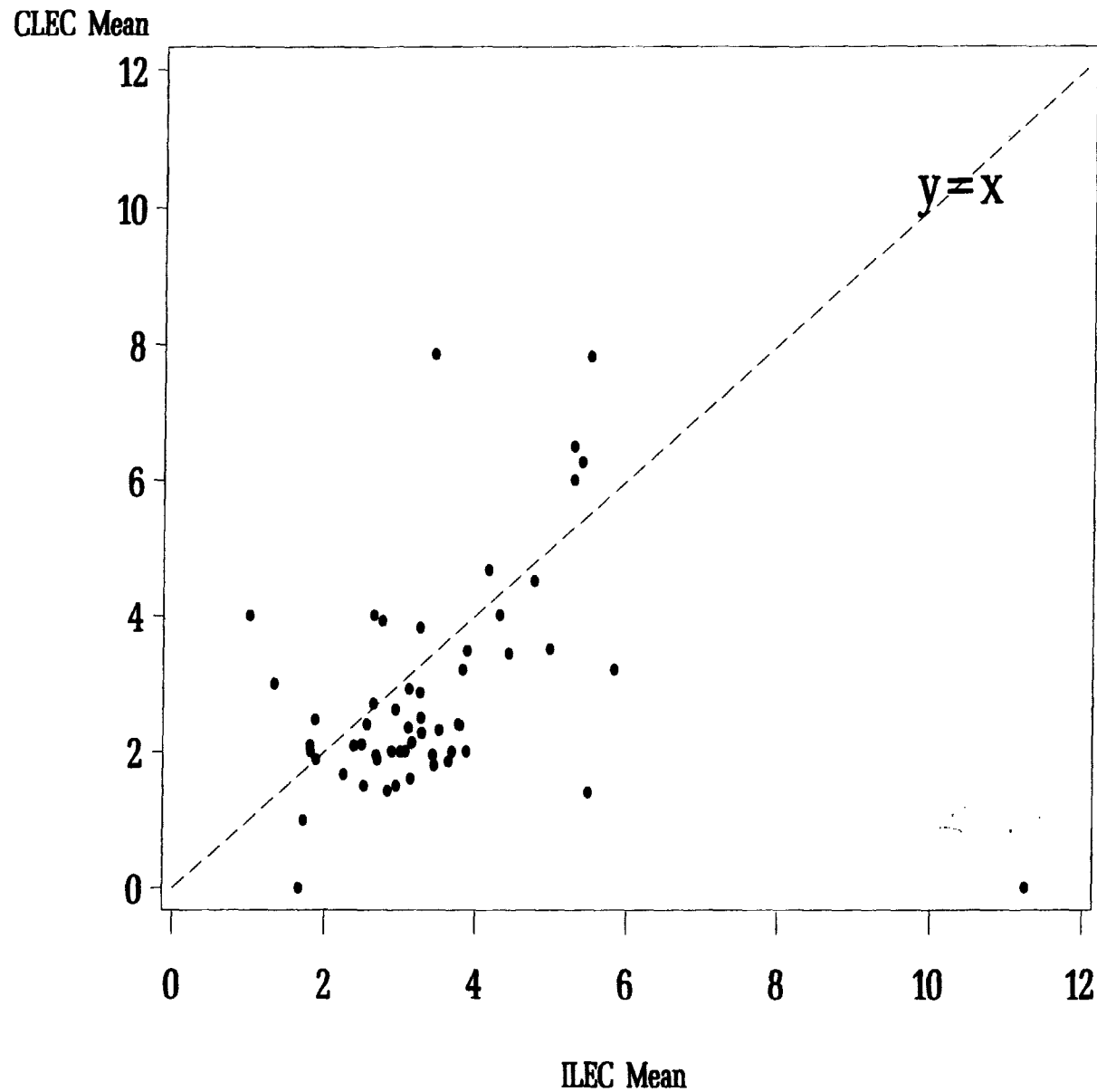
ISSUES

1. Handling Questionable Data
2. Respecting Business Structure
3. Managing Computational Difficulties

APPROACH

1. Screen for Outliers
2. Use "Switch," for example, as the Unit of Analysis
3. Employ Replication

'New Services', Louisiana, August 1998
Random Sample of Switches



Regression Equation: CLEC Mean = 0.865 ILEC Mean (R-square = 0.8294).

Note: Regression intercept is set to 0, and 1 outlier is excluded from the calculation.

An Example using 'New Service,' Louisiana, August 1998

The scatterplot shows results using a random sample of approximately 9% of the switches in the August 1998, Louisiana data, and restricting attention to "New Service" orders. This is an example only.

BASIC APPROACH

Remove "impossible" data values and trim a very small but fixed percentage of the data, to remove stochastic outliers.

As an example, use "switch" as the unit of analysis, for comparing the CLEC performance values to the ILEC values. For each "switch," calculate the ILEC mean and the CLEC mean.

Employ Replication: Randomly divide the data into G groups, by switch. Use more than 30 replicates. For example, if the data file contained 660 switches and G=33, then each replicate would contain the data for 20 switches. The assignment of switches to replicates would be random.

MORE DETAILS

In each replicate, say g, calculate the mean value of the performance measure for each switch, for the CLEC's and for the ILEC's. In each replicate, calculate the average difference in the means over the switches:

$$d_g = \overline{CLEC}_g - \overline{ILEC}_g$$

A t-test is then done (with 32 degrees of freedom in the above example) where the t statistic is

$$\frac{\bar{d}}{s_d} \quad \text{where}$$
$$\bar{d} = \frac{\sum_{g=1}^G d_g}{G} \quad \text{and} \quad s_d = \sqrt{\frac{\sum (d_g - \bar{d})^2}{G - 1}}$$

This calculation does not depend on the assumption of independence of the data values one from another. It also does not depend on the assumption of homoscedasticity of the ILEC and CLEC variances. Moreover, it should be flexible in application. This measure captures what we see as the essence of the FCC proposal.